

TITLE 326 AIR POLLUTION CONTROL BOARD

Emergency Rule
LSA Document #09-693(E)

DIGEST

Temporarily amends [326 IAC 8-1-0.5](#), [326 IAC 8-1-2](#), [326 IAC 8-1-4](#), [326 IAC 8-2-1](#), [326 IAC 8-2-2](#), [326 IAC 8-2-5](#) through [326 IAC 8-2-7](#), [326 IAC 8-2-9](#), [326 IAC 8-2-10](#), and [326 IAC 8-5-5](#) regarding updated volatile organic compounds (VOC) reasonably available control technology (RACT) standards for Lake County and Porter County. Authority: [IC 4-22-2-37.1\(a\)\(13\)](#). Effective September 3, 2009.

SECTION 1. (a) This SECTION is supplemental to [326 IAC 8-1-0.5](#).

(b) "CTG" means a control technique guideline. A CTG is a U.S. EPA guidance document that triggers a responsibility under Section 182(b)(2) of the Clean Air Act regarding certain nonattainment areas for states to submit reasonably available control technology (RACT) rules for stationary sources of VOC emissions as part of their state implementation plans.

SECTION 2. (a) This SECTION supersedes [326 IAC 8-1-2\(a\)\(5\)\(D\)\(i\)](#).

(b) For automobile and light duty topcoating operations and combined primer-surfacer and topcoat operations, use procedures found in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations", EPA-453/R-08-002, September 2008*.

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, Thirteenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

SECTION 3. (a) This SECTION is supplemental to [326 IAC 8-1-4\(a\)\(3\)](#).

(b) 40 CFR 63, Subpart PPPP, Appendix A*, shall be used to determine the VOC content of reactive adhesives.

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, Thirteenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

SECTION 4. (a) This SECTION is supplemental to [326 IAC 8-2-1\(a\)](#).

(b) Surface coating operations, including related cleaning activities, of the types described in [326 IAC 8-2-2](#), [326 IAC 8-2-5](#), [326 IAC 8-2-6](#), [326 IAC 8-2-7](#), [326 IAC 8-2-9](#), and [326 IAC 8-2-10](#) located in Lake County or Porter County with actual VOC emissions of equal to or greater than fifteen (15) pounds per day before add-on controls as specified in SECTIONS 5 through 8, 10, and 12 of this document.

SECTION 5. (a) This SECTION is supplemental to [326 IAC 8-2-2](#).

(b) On and after April 1, 2011, the owner or operator of an automotive or light duty truck assembly plant in which the total actual VOC emissions from all automobile and light duty truck assembly coating operations, including related cleaning activities, are equal to or exceed fifteen (15) pounds per day, before add-on controls, located in Lake County or Porter County, shall comply with the following:

(1) VOC limitations for metal automotive or light duty truck assembly coating operations are as follows:

Assembly Coating Process	VOC Emission Limit
Electrodeposition primer (EDP) operations (including application area, spray/rinse stations, and curing oven)	VOC limit specified in 40 CFR 60.392(a)*

Primer-surfacer operations (including application area, flash-off area, and oven)	1.44 kilograms per liter of deposited solids (12.0 pounds per gallon) on a daily weighted average basis
Topcoat operations (including application area, flash-off area, and oven)	1.44 kilograms per liter of deposited solids (12.0 pounds per gallon) on a daily weighted average basis
Final repair operations	0.58 kilograms per liter of coating (4.8 pounds per gallon) excluding water and exempt solvents on a daily weighted average basis or as an occurrence weighted average
Combined primer-surfacer and topcoat operations	1.44 kilograms per liter of deposited solids (12.0 pounds per gallon) on a daily weighted average basis

(2) VOC limitations for metal automotive or light duty truck assembly coating materials are as follows:

Material**	VOC Emission Limit (kilograms of VOC per liter excluding water and exempt compounds, as applied)
Automobile and light duty truck glass bonding primer	0.90 kg VOC/liter
Automobile and light duty truck adhesive	0.25 kg VOC/liter
Automobile and light duty truck cavity wax	0.65 kg VOC/liter
Automobile and light duty truck sealer	0.65 kg VOC/liter
Automobile and light duty truck deadener	0.65 kg VOC/liter
Automobile and light duty truck gasket/gasket sealing material	0.20 kg VOC/liter
Automobile and light duty truck underbody coating	0.65 kg VOC/liter
Automobile and light duty truck interior coating	0.65 kg VOC/liter
Automobile and light duty truck bed liner	0.20 kg VOC/liter
Automobile and light duty truck weatherstrip adhesive	0.75 kg VOC/liter
Automobile and light duty truck lubricating wax/compound	0.70 kg VOC/liter
** VOC limits do not apply to materials supplied in containers with a net volume of 16 ounces or less, or a net weight of one pound or less.	

(3) Work practices shall be used for storage, mixing, and handling operations for VOC coatings, thinners, and coating-related waste materials. Work practices shall include, but not be limited to, the following:

- (A) Store all VOC coatings, thinners, and coating-related materials in closed containers.
 - (B) Ensure that mixing and storage containers used for VOC coatings, thinners, and coating-related materials are kept closed at all times except when depositing or removing these materials.
 - (C) Minimize spills of VOC coatings, thinners, and coating-related materials.
 - (D) Convey VOC coatings, thinners, and coating-related materials from one (1) location to another in closed containers or pipes.
 - (E) Minimize VOC emissions from cleaning of storage, mixing, and conveying equipment.
- (4) Each facility shall develop and implement a work practice plan to minimize VOC emissions from cleaning and from purging of equipment associated with all coating operations for which emission limits are specified in this subsection. The plan shall specify practices and procedures to ensure that VOC emissions from the following operations are minimized:
- (A) Vehicle body wiping.
 - (B) Coating line purging.
 - (C) Flushing of coating systems.
 - (D) Cleaning of spray booth grates.
 - (E) Cleaning of spray booth walls.
 - (F) Cleaning of spray booth equipment.
 - (G) Cleaning external spray booth areas.
 - (H) Other housekeeping measures.

If a facility has a work practice plan in place as specified in 40 CFR 63, Subpart III*, a facility must add procedures for minimizing nonhazardous air pollutant VOC emissions.

*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, Thirteenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.

SECTION 6. (a) This SECTION is supplemental to [326 IAC 8-2-5](#).

(b) On and after April 1, 2011, the owner or operator of a coating line in which the total actual VOC emissions from all paper coating operations, including related cleaning activities, are equal to or exceed fifteen (15) pounds per day located in Lake County or Porter County, before add-on controls, shall comply with the following:

(1) For coating lines with potential VOC emissions of twenty-five (25) tons per year or greater the following VOC emission limitations apply:

(A) Two-tenths (0.2) kilogram VOC/kg solids (two-tenths (0.2) lb VOC/lb solids) applied for pressure sensitive tape and label coating.

(B) Four-tenths (0.4) kilogram VOC/kg solids (four-tenths (0.4) lb VOC/lb solids) applied for paper, film, and foil coating.

(2) As an alternative to subdivision (1), an owner or operator may achieve compliance using a capture and control device that achieves a minimum overall VOC control efficiency of ninety percent (90%).

(3) An owner or operator may also achieve compliance by using a combination of subdivisions (1) and (2) that is equivalent to ninety percent (90%) overall control. The required overall add-on control efficiency, when combining add-on control with low VOC coatings, must be determined using [326 IAC 8-1-2\(c\)](#), except that the units for actual VOC content and equivalent emissions limit is in pound of VOC per pound of coating solids instead of pound of VOC per gallon of coating solids.

(4) Work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for cleaning material, and cleaning-related waste materials. Work practices shall include, but not be limited to, the following:

(A) Store all VOC containing materials in closed containers.

(B) Ensure that mixing and storage containers used for VOC containing materials are kept closed at all times except when depositing or removing these materials.

(C) Minimize spills of VOC containing cleaning materials.

(D) Convey VOC containing cleaning materials from one (1) location to another in closed containers or pipes.

(E) Minimize VOC emissions from the cleaning of storage, mixing, and conveying equipment.

SECTION 7. (a) This SECTION is supplemental to [326 IAC 8-2-6](#).

(b) On and after April 1, 2011, the owner or operator of a metal furniture coating line in which the total actual VOC emissions from all metal furniture coating operations, including related cleaning activities, are equal to or exceed fifteen (15) pounds per day, before add-on controls, located in Lake County or Porter County, shall comply with the following:

(1) VOC limitations for metal furniture coating according to either of the following:

(A) Emission limits in terms of mass of VOC per volume of coating:

Coating Type	Maximum VOC Content	
	Baked	Air Dried
	Kilograms/liter (pounds/gallon) of coating, excluding water, as applied	Kilograms/liter (pounds/gallon) of coating, excluding water, as applied
General, one component	0.275 (2.3)	0.275 (2.3)
General, multicomponent	0.275 (2.3)	0.340 (2.8)
Extreme high gloss	0.360 (3.0)	0.340 (2.8)
Extreme performance	0.360 (3.0)	0.420 (3.5)
Heat resistant	0.360 (3.0)	0.420 (3.5)
Metallic	0.420 (3.5)	0.420 (3.5)
Pretreatment coatings	0.420 (3.5)	0.420 (3.5)
Solar absorbent	0.360 (3.0)	0.420 (3.5)

(B) Emission limits in terms of mass of VOC per volume of coating solids, as applied:

Coating Type	Maximum VOC Content	
	Baked	Air Dried
	Kilograms/liter (pounds/gallon) of coating solids, as applied	Kilograms/liter (pounds/gallon) of coating solids, as applied
General, one component	0.40 (3.3)	0.40 (3.3)
General, multicomponent	0.40 (3.3)	0.55 (4.5)
Extreme high gloss	0.61 (5.1)	0.55 (4.5)
Extreme performance	0.61 (5.1)	0.80 (6.7)
Heat resistant	0.61 (5.1)	0.80 (6.7)
Metallic	0.80 (6.7)	0.80 (6.7)
Pretreatment coatings	0.80 (6.7)	0.80 (6.7)
Solar absorbent	0.61 (5.1)	0.80 (6.7)

(2) As an alternative to subdivision (1), an owner or operator may achieve compliance with this subsection by using a capture and control device that achieves a minimum overall VOC control efficiency of ninety percent (90%).

(3) An owner or operator may also achieve compliance by using a combination of subdivisions (1)(B) and (2) that is equivalent to ninety percent (90%) overall control. The required overall add-on control efficiency, when combining add-on control with low VOC coatings, must be determined using [326 IAC 8-1-2\(c\)](#).

(4) One (1) or a combination of the following equipment shall be used for coating application:

- (A) Electrostatic equipment.
- (B) High volume low-pressure (HVLP) spray equipment.
- (C) Flow coating.
- (D) Roller coating.
- (E) Dip coating, including electrodeposition.
- (F) Other coating application method capable of achieving a transfer efficiency equivalent to or better than achieved by HVLP spraying.

(5) Work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for cleaning material, coating related materials, and cleaning-related waste materials. Work practices shall include, but not be limited to, the following:

- (A) Store all VOC containing materials in closed containers.
- (B) Ensure that mixing and storage containers used for VOC containing materials are kept closed at all times except when depositing or removing these materials.
- (C) Minimize spills of VOC containing materials.
- (D) Convey VOC containing materials from one (1) location to another in closed containers or pipes.
- (E) Minimize VOC emissions from the cleaning of storage, mixing, and conveying equipment.

(c) The following coating types are exempt from the emission limitations in this SECTION:

- (1) Stencil coatings.
- (2) Safety-indicating coatings.
- (3) Solid film lubricants.
- (4) Electric-insulating and thermal-conducting coatings.
- (5) Touch-up and repair coatings.
- (6) Hand-held aerosol can coatings.

SECTION 8. (a) This SECTION is supplemental to [326 IAC 8-2-7](#).

(b) On and after April 1, 2011, the owner or operator of a large appliance coating line in which the total actual VOC emissions from all large appliance coating operations, including related cleaning activities, are equal to or exceed fifteen (15) pounds per day, before add-on controls, located in Lake County or Porter County, shall comply with the following:

- (1) VOC limitations for large appliance coating according to either of the following:
 - (A) Emission limits in terms of mass of VOC per volume of coating:

Coating Type	Maximum VOC Content	
	Baked	Air Dried
	Kilograms/liter (pounds/gallon) of coating, excluding water, as applied	Kilograms/liter (pounds/gallon) of coating, excluding water, as applied
General, one component	0.275 (2.3)	0.275 (2.3)
General, multicomponent	0.275 (2.3)	0.340 (2.8)
Extreme high gloss	0.360 (3.0)	0.340 (2.8)
Extreme performance	0.360 (3.0)	0.420 (3.5)
Heat resistant	0.360 (3.0)	0.420 (3.5)
Metallic	0.420 (3.5)	0.420 (3.5)
Pretreatment coatings	0.420 (3.5)	0.420 (3.5)
Solar absorbent	0.360 (3.0)	0.420 (3.5)

(B) Emission limits in terms of mass of VOC per volume of coating solids, as applied:

Coating Type	Maximum VOC Content	
	Baked	Air Dried
	Kilograms/liter (pounds/gallon) of coating solids, as applied	Kilograms/liter (pounds/gallon) of coating solids, as applied
General, one component	0.40 (3.3)	0.40 (3.3)
General, multicomponent	0.40 (3.3)	0.55 (4.5)
Extreme high gloss	0.61 (5.1)	0.55 (4.5)
Extreme performance	0.61 (5.1)	0.80 (6.7)
Heat resistant	0.61 (5.1)	0.80 (6.7)
Metallic	0.80 (6.7)	0.80 (6.7)
Pretreatment coatings	0.80 (6.7)	0.80 (6.7)
Solar absorbent	0.61 (5.1)	0.80 (6.7)

(2) As an alternative to subdivision (1), an owner or operator may achieve compliance with this subsection by using a capture and control device that achieves a minimum overall VOC control efficiency of ninety percent (90%).

(3) An owner or operator may also achieve compliance by using a combination of subdivisions (1) and (2) that is equivalent to ninety percent (90%) overall control. The required overall add-on control efficiency, when combining add-on control with low VOC coatings, must be determined using [326 IAC 8-1-2\(c\)](#).

(4) One (1) or a combination of the following equipment shall be used for coating application:

- (A) Electrostatic equipment.
- (B) High volume low-pressure (HVLP) spray equipment.
- (C) Flow coating.
- (D) Roller coating.
- (E) Dip coating, including electrodeposition.
- (F) Other coating application method capable of achieving a transfer efficiency equivalent or better than achieved by HVLP spraying.

(5) Work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for cleaning material, coating materials, thinners, and cleaning-related waste materials. Work practices shall include, but not be limited to, the following:

- (A) Store all VOC containing materials in closed containers.
- (B) Ensure that mixing and storage containers used for VOC containing materials are kept closed at all times except when depositing or removing these materials.
- (C) Minimize spills of VOC containing cleaning materials.
- (D) Convey VOC containing cleaning materials from one (1) location to another in closed containers or pipes.
- (E) Minimize the usage of solvents during the cleaning of storage, mixing, and conveying equipment.

SECTION 9. (a) This SECTION supersedes [326 IAC 8-2-7\(c\)](#).

(b) The following exemptions apply in [326 IAC 8-2-7](#):

- (1) The use of quick-drying lacquers for repair of scratches and nicks that occur during assembly are exempt from the requirements [326 IAC 8-2-7\(b\)](#) (limited to one (1) gallon in an eight (8) hour period).
- (2) The following coating types are exempt from the emission limitations in [326 IAC 8-2-7](#):
 - (A) Stencil coatings.
 - (B) Safety-indicating coatings.
 - (C) Solid film lubricants.
 - (D) Electric-insulating and thermal-conducting coatings.
 - (E) Touch-up and repair coatings.
 - (F) Hand-held aerosol can coatings.

SECTION 10. (a) This SECTION supersedes [326 IAC 8-2-9](#).

(b) This SECTION is applicable to the surface coating of the following:

- (1) Large and small farm machinery.
- (2) Small household appliances.
- (3) Office equipment.
- (4) Commercial and industrial machinery and equipment.
- (5) Any other industrial category that coats metal parts or products under the Standard Industrial Classification Code of major groups #33, #34, #35, #36, #37, #38, and #39.
- (6) Fabricated metal products.
- (7) Molded plastic parts.
- (8) Automotive or transportation equipment.
- (9) Interior or exterior automotive parts.
- (10) Construction equipment.
- (11) Motor vehicle accessories.
- (12) Bicycles and sporting goods.
- (13) Toys.
- (14) Recreational vehicles.
- (15) Pleasure craft (recreational boats).
- (16) Extruded aluminum structural components.
- (17) Railroad cars.
- (18) Heavier vehicles.
- (19) Lawn and garden equipment.
- (20) Business machines.
- (21) Laboratory and medical equipment.
- (22) Electronic equipment.
- (23) Steel drums.
- (24) Metal pipes.

(c) This SECTION is not applicable to the surface coating of the following metal parts and products or to the following types of coating:

- (1) Any metal parts or products limited by other SECTIONS of this document or [326 IAC 8-2](#).
- (2) Exterior of airplanes.
- (3) Automobile refinishing.
- (4) Customized top coating of automobiles and trucks, if production is less than thirty-five (35) vehicles per day.
- (5) Exterior of marine vessels.
- (6) The application of coatings to burial caskets (Standard Industrial Classification Code 3995) if the source is not located in or adjacent to:
 - (A) a county designated as nonattainment for ozone; or
 - (B) Clark County or Floyd County.

(d) No owner or operator of a facility engaged in the surface coating of miscellaneous metal parts and products may cause, allow, or permit the discharge into the atmosphere of any VOC in excess of the following:

- (1) Fifty-two hundredths (0.52) kilogram per liter (four and three-tenths (4.3) pounds per gallon) of coating, excluding water, delivered to a coating applicator that applies clear coatings. A clear coating is a coating that:
 - (A) lacks color or opacity; and
 - (B) is transparent and uses the undercoat as a reflectant base or undertone color.
- (2) Forty-two hundredths (0.42) kilogram per liter (three and five-tenths (3.5) pounds per gallon) of

coating excluding water, delivered to a coating applicator in a coating application system that is air dried or forced warm air dried at temperatures up to ninety (90) degrees Celsius (one hundred ninety-four (194) degrees Fahrenheit).

(3) Forty-two hundredths (0.42) kilogram per liter (three and five-tenths (3.5) pounds per gallon) of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings. Extreme performance coatings are coatings designed for exposure to:

- (A) temperatures consistently above ninety-five (95) degrees Celsius;
- (B) detergents;
- (C) abrasive or scouring agents;
- (D) solvents;
- (E) corrosive atmospheres;
- (F) outdoor weather at all times; or
- (G) similar environmental conditions.

(4) Thirty-six hundredths (0.36) kilogram per liter (three (3) pounds per gallon) of coating, excluding water, delivered to a coating applicator for all other coatings and coating application systems.

(e) On and after April 1, 2011, the owner or operator engaged in the surface coating of miscellaneous metal or plastic parts and products in which the total actual VOC emissions from all miscellaneous metal or plastic parts or products coating operations, including related cleaning activities, are equal to or exceed fifteen (15) pounds per day, before add-on controls, located in Lake County or Porter County, shall comply with the following:

(1) VOC limitations for surface coating of miscellaneous metal and plastic parts and products according to one (1) of the following:

(A) VOC limits based on low VOC coatings as follows:

Metal Parts and Products		
Coating Category	Maximum VOC Content	
	Air Dried	Baked
	Kilograms/liter (pounds/gallon) of coating, excluding water, as applied	Kilograms/liter (pounds/gallon) of coating, excluding water, as applied
General, one component	0.34 (2.8)	0.28 (2.3)
General, multicomponent		
Military specification		
Drum coating, new, exterior		
Camouflage	0.42 (3.5)	0.42 (3.5)
Electric-insulating varnish		
Etching filler		
High temperature		
Metallic		
Mold-seal		
Pan backing		
Pretreatment coatings		
Silicone release		
Vacuum-metalizing		
Drum coating, new, interior	0.42 (3.5)	0.36 (3.0)
Drum coating, reconditioned, exterior		
Extreme high-gloss		
Extreme performance		
Heat-resistant		
Repair and touch-up	0.74 (6.2)	0.74 (6.2)
Solar-absorbent		
High performance architectural		
Prefabricated architectural one or multicomponent	0.42 (3.5)	0.28 (2.3)
Drum coating, reconditioned, interior	0.50 (4.2)	0.50 (4.2)

Plastic Parts and Products	
Coating Category	Kilograms/liter (pounds/gallon) of coating, excluding water, as applied
General, one component	0.28 (2.3)
General, multicomponent	0.42 (3.5)
Electric dissipating coatings and shock free coatings	0.80 (6.7)
Extreme performance	0.42 (3.5) (two-pack coatings)
Metallic	0.42 (3.5)
Military specification	0.34 (2.8) (one pack)
	0.42 (3.5) (two pack)
Mold seal	0.76 (6.3)
Multicolored coatings	0.68 (5.7)
Optical coatings	0.80 (6.7)
Vacuum-metalizing	0.80 (6.7)

Automotive and Transportation Plastic Parts Coatings*		
Coating Category		Kilograms/liter (pounds/gallon) of coating, excluding water, as applied
High bake coatings – interior and exterior parts		
	Flexible primer	0.54 (4.5)
	Nonflexible primer	0.42 (3.5)
	Base coat	0.52 (4.3)
	Clear coat	0.48 (4.0)
	Nonbasecoat/clear coat	0.52 (4.3)
Low bake/air dried coatings – exterior parts		
	Primers	0.58 (4.8)
	Base coat	0.60 (5.0)
	Clear coat	0.54 (4.5)
	Nonbasecoat/clear coat	0.60 (5.0)
Low bake/air dried coatings – interior parts		0.60 (5.0)
Touch-up and repair coatings		0.62 (5.2)
*For red, yellow, and black automotive coatings, except touch-up and repair coatings, the limit is determined by multiplying the appropriate limit in this table by 1.15		

Business Machine Plastic Parts Coatings	
Coating Category	Kilograms/liter (pounds/gallon) of coating, excluding water, as applied
Primers	0.35 (2.9)
Topcoat	0.35 (2.9)
Texture coat	0.35 (2.9)
Fog coat	0.26 (2.2)
Touch-up and repair	0.35 (2.9)
Pleasure Craft Surface Coating	
Coating Category	Kilograms/liter (pounds/gallon) of coating, excluding water, as applied
Extreme high gloss topcoat	0.49 (4.1)
High gloss topcoat	0.42 (3.5)
Pretreatment wash primers	0.78 (6.5)
Finish primer surfacer	0.42 (3.5)
High build primer surfacer	0.34 (2.8)
Aluminum substrate antifoulant coating	0.56 (4.7)

Other substrate antifoulant coating	0.33 (2.8)
All other pleasure craft surface coatings for metal or plastic	0.42 (3.5)
Motor Vehicle Materials	
Coating Category	Kilograms/liter (pounds/gallon) of coating, excluding water, as applied
Motor vehicle cavity wax	0.65 (5.4)
Motor vehicle sealer	0.65 (5.4)
Motor vehicle deadener	0.65 (5.4)
Motor vehicle gasket/gasket sealing material	0.20 (1.7)
Motor vehicle underbody coating	0.65 (5.4)
Motor vehicle trunk interior coating	0.65 (5.4)
Motor vehicle bed liner	0.20 (1.7)
Motor vehicle lubricating wax/compound	0.70 (5.8)

(B) VOC limits based on low VOC coatings and add-on controls (VOC per volume solids), except for motor vehicle materials, as follows:

Metal Part and Products		
Coating Category	Maximum VOC Content	
	Air Dried	Baked
	Kilograms/liter (pounds/gallon) of solids, excluding water, as applied	Kilograms/liter (pounds/gallon) of solids, excluding water, as applied
General, one component	0.54 (4.52)	0.40 (3.35)
General, multicomponent		
Military specification		
Drum coating, new, exterior		
Camouflage	0.80 (6.67)	0.80 (6.67)
Electric-insulating varnish		
Etching filler		
High temperature		
Metallic		
Mold-seal		
Pan backing		
Pretreatment coatings		
Silicone release		
Vacuum-metalizing		
Drum coating, new, interior		
Drum coating, reconditioned, exterior		
Extreme high-gloss	0.80 (6.67)	0.61 (5.06)
Extreme performance		
Heat-resistant		
Solar-absorbent		
High performance architectural	4.56 (38.0)	4.56 (38.0)
Prefabricated architectural one or multicomponent	0.80 (6.67)	0.40 (3.35)
Drum coating, reconditioned, interior	1.17 (9.78)	1.17 (9.78)

Plastic Parts and Products	
Coating Category	Kilograms/liter (pounds/gallon) of solids, excluding water, as applied
General, one component	0.40 (3.35)
General, multicomponent	0.80 (6.67)

Electric dissipating coatings and shock free coatings	8.96 (74.7)
Extreme performance	0.80 (6.67) (two-pack coatings)
Metallic	0.80 (6.67)
Military specification	0.54 (4.52) (one pack)
	0.80 (6.67) (two pack)
Mold seal	5.24 (43.7)
Multicolored coatings	3.04 (25.3)
Optical coatings	8.96 (74.7)
Vacuum-metalizing	8.96 (74.7)

Automotive and Transportation Plastic Parts Coatings*	
Coating Category	Kilograms/liter (pounds/gallon) of solids, excluding water, as applied
High bake coatings – interior and exterior parts	
Flexible primer	1.39 (11.58)
Nonflexible primer	0.80 (6.67)
Base coat	1.24 (10.34)
Clear coat	1.05 (8.76)
Nonbasecoat/clear coat	1.24 (10.34)
Low bake/air dried coatings – exterior parts	
Primers	1.66 (13.80)
Base coat	1.87 (15.59)
Clear coat	1.39 (11.58)
Nonbasecoat/clear coat	1.87 (15.59)
Low bake/air dried coatings – interior parts	1.87 (15.59)
Touch-up and repair coatings	2.13 (17.72)
*For red, yellow, and black automotive coatings, except touch-up and repair coatings, the limit is determined by multiplying the appropriate limit in this table by 1.15	

Business Machine Plastic Parts Coatings	
Coating Category	Kilograms/liter (pounds/gallon) of solids, excluding water, as applied
Primers	0.57 (4.80)
Topcoat	0.57 (4.80)
Texture coat	0.57 (4.80)
Fog coat	0.38 (3.14)
Touch-up and repair	0.57 (4.80)
Pleasure Craft Surface Coating	
Coating Category	Kilograms/liter (pounds/gallon) of solids, excluding water, as applied
Extreme high gloss topcoat	1.10 (9.2)
High gloss topcoat	0.80 (6.7)
Pretreatment wash primers	6.67 (55.6)
Finish primer surfacer	0.80 (6.7)
High build primer surfacer	0.55 (4.6)
Aluminum substrate antifoulant coating	1.53 (12.8)
Other substrate antifoulant coating	0.53 (4.4)
All other pleasure craft surface coatings for metal or plastic	0.80 (6.7)

(2) One (1) or a combination of the following equipment shall be used for coating application, unless achieving compliance using an add-on control device under subdivision (3) or exempt under subdivision (7):

(A) Electrostatic equipment.

- (B) High volume low-pressure (HVLP) spray equipment.
- (C) Flow coating.
- (D) Roller coating.
- (E) Dip coating, including electrodeposition.
- (F) Airless spray.
- (G) Air-assisted airless spray.
- (H) Other coating application method capable of achieving a transfer efficiency equivalent or better than achieved by HVLP spraying.

(3) An owner or operator may achieve compliance with this subsection by using a capture and control device that achieves a minimum overall VOC control efficiency of ninety percent (90%) instead of using low VOC coatings and application methods under subdivision (2). The required overall add-on control efficiency, when combining add-on control with low VOC coatings, must be determined using [326 IAC 8-1-2\(c\)](#).

(4) The following coating types are exempt from the metal parts coating VOC limits in this subsection:

- (A) Stencil coatings.
- (B) Safety-indicating coatings.
- (C) Solid film lubricants.
- (D) Electric-insulating and thermal-conducting coatings.
- (E) Magnetic data storage disk coatings.
- (F) Plastic extruded onto metal parts to form a coating.

(5) The following types of coatings and coating operations are exempt from the plastic parts VOC limits in this subsection:

- (A) Touch-up and repair coatings.
- (B) Stencil coatings applied on clear or transparent substrates.
- (C) Clear or translucent coatings.
- (D) Coatings applied at a paint manufacturing facility while conducting performance tests on the coatings.
- (E) Any individual coating category used in volumes less than fifty (50) gallons in any one (1) year, if substitute compliant coatings are not available, provided that the total usage of all such coatings does not exceed two hundred (200) gallons per year, per facility.
- (F) Reflective coating applied to highway cones.
- (G) Mask coatings that are less than five-tenths (0.5) millimeter thick (dried) and the area coated is less than twenty-five (25) square inches.
- (H) Electromagnetic interference or radio frequency interference (EMI or RFI) shielding coatings.
- (I) Heparin-benzalkonium chloride (HBAC) containing coatings applied to medical devices, provided that the total usage of all such coatings does not exceed one hundred (100) gallons per year, per plastic parts coating operation.

(6) The following types of coatings and operations are exempt from the automotive or transportation and business machine plastic part coating VOC limits:

- (A) Texture coatings.
- (B) Vacuum metalizing coatings.
- (C) Gloss reducers.
- (D) Texture topcoats.
- (E) Adhesion primers.
- (F) Electrostatic preparation coatings.
- (G) Resist coatings.
- (H) Stencil coatings.

(7) The application method requirements in subdivision (2) do not apply to the following:

- (A) Metal parts touch-up coatings, repair coatings, and textured finishes.
- (B) Plastic parts airbrush operations using five (5) gallons or less per year of coating.
- (C) Extreme high gloss coatings are exempt from the pleasure craft VOC limits.

(f) If more than one (1) emission limitation in subsection (c) applies to a specific coating, then the least stringent emission limitation shall be applied.

(g) Work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

- (1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.
- (2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating

related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.

(3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.

(4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.

(5) Minimize VOC emissions from the cleaning of application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

SECTION 11. (a) This SECTION supersedes [326 IAC 8-2-10\(a\)](#).

(b) This SECTION and SECTION 12 of this document establishes *[sic]* the emission limitations for flat wood manufacturing and surface finishing of the following:

(1) Printed interior panels made of hardwood plywood and thin particle board. "Printed interior panels" means panels whose grain or natural surface is obscured by fillers and basecoats upon which a simulated grain or decorative pattern is printed. "Hardwood particleboard" means a manufactured board one-fourth (1/4) inch or less in thickness made of individual wood particles that have been coated with a binder and formed into flat sheets by pressure.

(2) Natural finish hardwood plywood panels. "Natural finish hardwood plywood panels" means panels whose original grain pattern is enhanced by essentially transparent finishes frequently supplemented by fillers and toners.

(3) Hardboard paneling with Class II finishes. "Hardboard" means a panel manufactured primarily from inter-felted ligno-cellulosic fibers that are consolidated under heat and pressure in a hot press. "Class II finish" means finishes that meet the specifications of Voluntary Product Standard PS-59-73 as approved by the American National Standards Institute.

(4) Exterior siding. Exterior siding may be made of solid wood, hardboard, or waferboard.

(5) Tileboard. "Tileboard" means a premium interior wall paneling product made of hardboard that is used in high moisture areas of the home, such as kitchens and bathrooms.

SECTION 12. (a) This SECTION is supplemental to [326 IAC 8-2-10](#).

(b) On and after April 1, 2011, the owner or operator of a flatwood manufacturing facility in which the total actual VOC emissions from all flatwood paneling coating lines, including related cleaning activities, are equal to or exceed fifteen (15) pounds per day, before add-on controls, located in Lake County or Porter County, shall comply with the following:

(1) VOC emission limitations as follows:

Paneling Category	lb of VOC per gallon (grams VOC per liter) of surface coating, ink, or adhesive (excluding water and exempt compounds)	lb VOC per gallon solids (grams VOC per liter solids)
Printing interior panels made of hardwood, plywood, or thin particleboard	2.1 (250)	2.9 (350)
Natural finish hardwood plywood panels	2.1 (250)	2.9 (350)
Class II finishes on hardboard panels	2.1 (250)	2.9 (350)
Tileboard	2.1 (250)	2.9 (350)
Exterior siding	2.1 (250)	2.9 (350)

(2) An owner or operator may achieve compliance with this subsection by using a capture and control device that achieves a minimum overall VOC control efficiency of ninety percent (90%).

(3) As an alternative to subdivision (1), an owner or operator may also achieve compliance by using a combination of subdivisions (1) and (2) that is equivalent to ninety percent (90%) overall control. The required overall add-on control efficiency, when combining add-on control with low VOC coatings, must be determined using [326 IAC 8-1-2\(c\)](#).

(4) Work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include the following, at a minimum:

(A) Store all VOC containing materials in closed containers.

(B) Ensure that mixing and storage containers used for VOC containing materials are kept closed at all times except when depositing or removing these materials.

- (C) Minimize spills of VOC containing cleaning materials.
- (D) Convey VOC containing cleaning materials from one (1) location to another in closed containers or pipes.
- (E) Minimize VOC emissions from the cleaning of storage, mixing, and conveying equipment.

SECTION 13. (a) This SECTION is *[sic]* superseded [326 IAC 8-5-5](#).

(b) This SECTION applies to packaging rotogravure, publication rotogravure, and flexographic printing sources as follows:

- (1) Sources existing as of November 1, 1980, whose potential emissions of VOC are greater than ninety (90) megagrams per year (one hundred (100) tons per year).
- (2) All new (after November 1, 1980) sources, located anywhere in the state, with potential emissions of twenty-two and seven-tenths (22.7) megagrams (twenty-five (25) tons) per year or more VOC.
- (3) As of October 1, 1993, all sources located in Lake County or Porter County as follows:
 - (A) Sources whose potential emissions of VOC are greater than or equal to twenty-two and seven-tenths (22.7) megagrams (twenty-five (25) tons) per year are subject to the requirements of this SECTION and the requirements of [326 IAC 8-1-9](#) through [326 IAC 8-1-12](#), as applicable.
 - (B) Sources whose potential emissions of VOC are less than twenty-five (25) tons per year but greater than or equal to ten (10) tons per year are exempt from the emission limit requirements of subsection (c), the capture system requirements of subsection (d), and the capture system requirements of subsection (e) but shall comply with the requirements of [326 IAC 8-7-2\(c\)](#) and [326 IAC 8-1-9\(b\)](#).
 - (C) Sources whose potential emissions of VOC are less than ten (10) tons per year shall comply with the requirements of [326 IAC 8-1-9\(b\)](#).
- (4) As of April 1, 2011, all sources located in Lake County or Porter County in which the total actual VOC emissions from all flexible packaging printing lines, including related cleaning activities, are equal to or exceed fifteen (15) pounds per day, before add-on controls, shall comply with subsection (g).

(c) The following definitions apply throughout this SECTION:

- (1) "Flexible packaging printing" means the performance of packaging flexographic printing or packaging rotogravure printing. Flexible packaging refers to any package or part of a package the shape of which can be readily changed.
- (2) "Flexographic printing" means the application of words, designs, and pictures to a substrate by means of a roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric materials.
- (3) "Packaging rotogravure printing" means rotogravure printing upon:

- (A) paper;
- (B) paper board;
- (C) metal foil;
- (D) plastic film; and
- (E) other substrates;

that are, in subsequent operations, formed into packaging products and labels for articles to be sold.

(4) "Publication rotogravure printing" means rotogravure printing upon paper that is subsequently formed into the following:

- (A) Books.
- (B) Magazines.
- (C) Catalogues.
- (D) Brochures.
- (E) Directories.
- (F) Newspaper supplements.
- (G) Other types of printed materials.

(d) No owner or operator of a facility subject to this SECTION and employing solvent-containing ink may cause, allow, or permit the operation of the facility unless:

- (1) the volatile fraction of the ink, as it is applied to the substrate, contains twenty-five percent (25%) by volume or less of VOC and seventy-five percent (75%) by volume or more of water;
- (2) the ink as it is applied to the substrate, less water, contains sixty percent (60%) by volume or more nonvolatile material;
- (3) the owner or operator installs and operates:
 - (A) a carbon adsorption system that reduces the VOC from the capture system by at least ninety

percent (90%) by weight;

(B) an incineration system that oxidizes at least ninety percent (90%) of the nonmethane VOC (VOC measured as total combustible carbon) to carbon dioxide and water; or

(C) an alternative VOC emission reduction system demonstrated to have at least a ninety percent (90%) reduction efficiency, measured across the control system, and has been approved by the commissioner; or

(4) for packaging rotogravure and flexographic printing processes, the ink, as applied to the substrate, meets an emission limit of five-tenths (0.5) pound of VOC per pound (five-tenths (0.5) kilogram (kg) of VOC per kg) of solids in the ink.

(e) The following facilities subject to this SECTION shall comply with the capture system requirements in subsection (e) *[this subsection]*:

(1) Facilities existing as of July 1, 1990, with potential VOC emissions of ninety (90) megagrams (one hundred (100) tons) or greater per year located in Clark, Elkhart, Floyd, Marion, or St. Joseph counties. These facilities shall attain compliance with subsection (f)(1) no later than July 1, 1991.

(2) New facilities, construction of which commences after July 1, 1990, with potential emissions of twenty-two and seven-tenths (22.7) megagrams (twenty-five (25) tons) or greater per year located in any county.

(3) Facilities located in Lake County or Porter County with potential emissions of twenty-two and seven-tenths (22.7) megagrams (twenty-five (25) tons) or greater per year, prior to controls, from inks, coatings, and adhesives combined. These facilities shall attain compliance with subsection (f)(1) no later than October 1, 1993, and the flexible packaging requirements in subsection (f)(2) no later than April 1, 2011.

(f) A capture system must be used in conjunction with the emission control systems specified in subsection (c)(3) as follows:

(1) The capture system shall attain an efficiency sufficient to achieve an overall control efficiency, in conjunction with the emission control system, of the following:

(A) Seventy-five percent (75%) for publication rotogravure processes.

(B) Sixty-five percent (65%) for packaging rotogravure processes.

(C) Sixty percent (60%) for flexographic printing processes.

(2) For flexible packaging printing presses, on and after April 1, 2011, the capture system shall attain an efficiency sufficient to achieve an overall control efficiency, in conjunction with the emission control system, of the following:

(A) Sixty-five percent (65%) for a flexible packaging printing press that was first installed prior to March 14, 1995, and that is controlled by an add-on air pollution control device whose first installation date was prior to January 1, 2010.

(B) Seventy percent (70%) for a flexible packaging printing press that was first installed prior to March 14, 1995, and that is controlled by an add-on air pollution control device whose first installation date was on or after January 1, 2010.

(C) Seventy-five percent (75%) for a flexible packaging printing press that was first installed after March 14, 1995, and that is controlled by an add-on air pollution control device whose first installation date was prior to January 1, 2010.

(D) Eighty percent (80%) for a flexible packaging printing press that was first installed on or after March 14, 1995, and that is controlled by an add-on air pollution control device whose first installation date was on or after January 1, 2010.

(g) Work practices shall be used to minimize VOC emissions from cleaning operations. Work practices shall include, but not be limited to, the following:

(1) When not in use, all cleaning materials shall be kept in closed containers.

(2) Cleaning materials shall be conveyed from one (1) location to another in closed containers or pipes.

SECTION 14. A variance request from the requirements of this document shall be made in accordance with [IC 13-14-8-8](#).

SECTION 15. This document expires on the effective date of LSA *[Document]* #09-220 or ninety (90) days after filing with the publisher, whichever takes place first.

LSA Document #09-693(E)

Filed with Publisher: September 3, 2009, 2:12 p.m.

Posted: 09/16/2009 by Legislative Services Agency
An [html](#) version of this document.